

Title (en)  
Carrier recovery circuit.

Title (de)  
Schaltung zur Rückgewinnung einer Trägerwelle.

Title (fr)  
Circuit de régénération d'onde porteuse.

Publication  
**EP 0072241 A2 19830216 (EN)**

Application  
**EP 82304203 A 19820810**

Priority  
• JP 12487281 A 19810810  
• JP 14996181 A 19810922

Abstract (en)  
A carrier-wave regeneration circuit for use in a demodulator for a 2<n>-phase PSK modulated signal comprises a phase-locked loop including a voltage-controlled oscillator 7 and an automatic frequency control (AFC) loop for avoiding the pseudo-lock-in phenomenon. The AFC loop is comprised of two differentiating circuits (21, 25) two mixer circuits (22, 26), and a difference circuit (27) and forms a symmetrical structure so as to exclude undesired noise thereby carrying out a stable AFC operation.

IPC 1-7  
**H04L 27/22**

IPC 8 full level  
**H04L 27/227** (2006.01)

CPC (source: EP)  
**H04L 27/2273** (2013.01)

Cited by  
DE3524145A1; EP0291947A3; EP0140440A3; EP0258649A3; EP0297774A3; EP0257584A1; AT394291B; EP0461022A1; FR2663177A1; US5233631A; GB2299227A; US5656971A; GB2299227B

Designated contracting state (EPC)  
DE FR GB NL

DOCDB simple family (publication)  
**EP 0072241 A2 19830216; EP 0072241 A3 19840829; EP 0072241 B1 19860813; DE 3272570 D1 19860918**

DOCDB simple family (application)  
**EP 82304203 A 19820810; DE 3272570 T 19820810**